

10/045,292

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal600txm

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 AUG 09 INSPEC enhanced with 1898-1968 archive  
NEWS 4 AUG 28 ADISCTI Reloaded and Enhanced  
NEWS 5 AUG 30 CA(SM)/CPlus(SM) Austrian patent law changes  
NEWS 6 SEP 11 CA/CPlus enhanced with more pre-1907 records  
NEWS 7 SEP 21 CA/CPlus fields enhanced with simultaneous left and right  
truncation  
NEWS 8 SEP 25 CA(SM)/CPlus(SM) display of CA Lexicon enhanced  
NEWS 9 SEP 25 CAS REGISTRY(SM) no longer includes Concord 3D coordinates  
NEWS 10 SEP 25 CAS REGISTRY(SM) updated with amino acid codes for pyrrollysine  
NEWS 11 SEP 28 CEABA-VTB classification code fields reloaded with new  
classification scheme  
NEWS 12 OCT 19 LOGOFF HOLD duration extended to 120 minutes  
NEWS 13 OCT 19 E-mail format enhanced  
NEWS 14 OCT 23 Option to turn off MARPAT highlighting enhancements available  
NEWS 15 OCT 23 CAS Registry Number crossover limit increased to 300,000 in  
multiple databases  
NEWS 16 OCT 23 The Derwent World Patents Index suite of databases on STN  
has been enhanced and reloaded  
NEWS 17 OCT 30 CHEMLIST enhanced with new search and display field  
NEWS 18 NOV 03 JAPIO enhanced with IPC 8 features and functionality  
NEWS 19 NOV 10 CA/CPlus F-Term thesaurus enhanced  
NEWS 20 NOV 10 STN Express with Discover! free maintenance release Version  
8.01c now available  
NEWS 21 NOV 20 CAS Registry Number crossover limit increased to 300,000 in  
additional databases  
NEWS 22 NOV 20 CA/CPlus to MARPAT accession number crossover limit increased  
to 50,000  
NEWS 23 DEC 01 CAS REGISTRY updated with new ambiguity codes  
NEWS 24 DEC 11 CAS REGISTRY chemical nomenclature enhanced  
NEWS 25 DEC 14 WPIDS/WPINDEX/WPIX manual codes updated  
NEWS 26 DEC 14 GBFULL and FRFULL enhanced with IPC 8 features and  
functionality  
NEWS 27 DEC 18 CA/CPlus pre-1967 chemical substance index entries enhanced  
with preparation role  
NEWS 28 DEC 18 CA/CPlus patent kind codes updated  
NEWS 29 DEC 18 MARPAT to CA/CPlus accession number crossover limit increased  
to 50,000  
NEWS 30 DEC 18 MEDLINE updated in preparation for 2007 reload  
  
NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8  
NEWS X25 X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that  
specific topic.

All use of STN is subject to the provisions of the STN Customer  
agreement. Please note that this agreement limits use to scientific  
research. Use for software development or design or implementation  
of commercial gateways or other similar uses is prohibited and may  
result in loss of user privileges and other penalties.

McIntosh

10/908,624

\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 18:37:47 ON 26 DEC 2006

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 18:38:15 ON 26 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 25 DEC 2006 HIGHEST RN 916309-42-7

DICTIONARY FILE UPDATES: 25 DEC 2006 HIGHEST RN 916309-42-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10045292c50.str

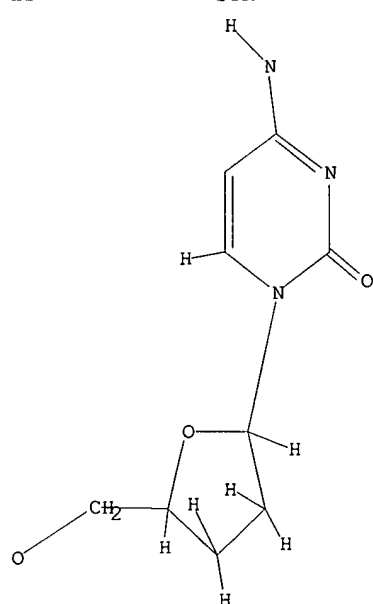
L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1

STR



claims 50751

Structure attributes must be viewed using STN Express query preparation.

=>

McIntosh

10/908,624

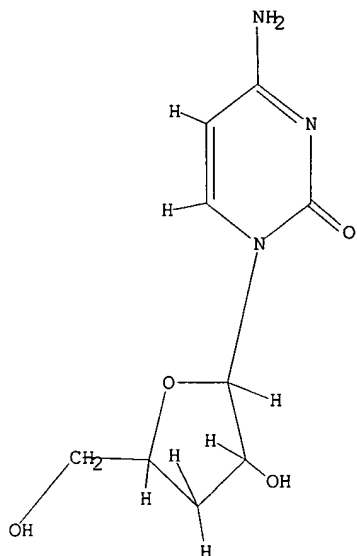
Uploading C:\Program Files\Stnexp\Queries\10045292c54.str

L2 STRUCTURE UPLOADED

=> d 12

L2 HAS NO ANSWERS

L2 STR



cl. 39 & 54

Structure attributes must be viewed using STN Express query preparation.

=>

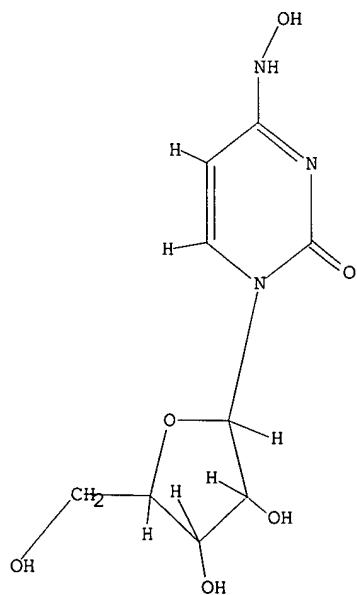
Uploading C:\Program Files\Stnexp\Queries\10045292c55.str

L3 STRUCTURE UPLOADED

=> d 13

L3 HAS NO ANSWERS

L3 STR



cl 40 & 55

McIntosh

10/908,624

Structure attributes must be viewed using STN Express query preparation.

=>

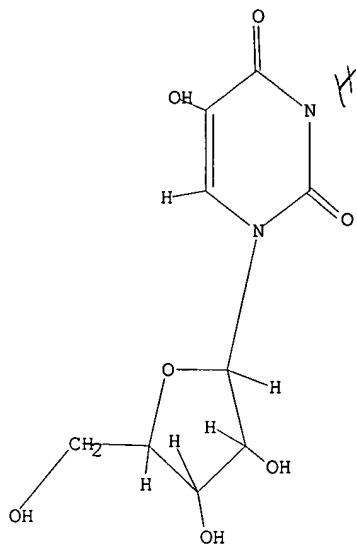
Uploading C:\Program Files\Stnexp\Queries\10045292c56.str

L4 STRUCTURE UPLOADED

=> d 14

L4 HAS NO ANSWERS

L4 STR



Cl. 41256

Structure attributes must be viewed using STN Express query preparation.

=>

Uploading C:\Program Files\Stnexp\Queries\10045292c57.str

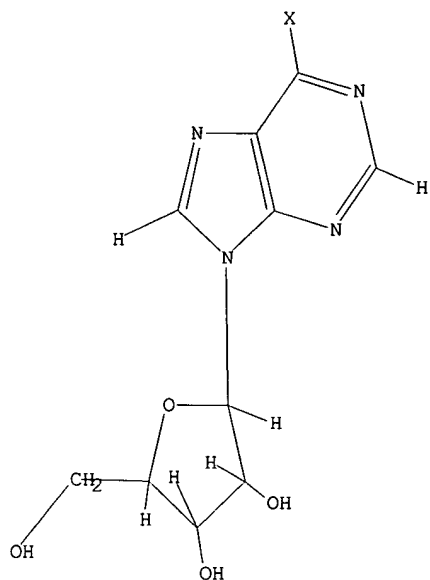
L5 STRUCTURE UPLOADED

=> d 15

L5 HAS NO ANSWERS

L5 STR

10/908,624



Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 18:39:57 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 2885 TO ITERATE

69.3% PROCESSED 2000 ITERATIONS 24 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 54479 TO 60921  
PROJECTED ANSWERS: 339 TO 1045

L6 24 SEA SSS SAM L1 .

=> s 12

SAMPLE SEARCH INITIATED 18:40:00 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 959 TO ITERATE

100.0% PROCESSED 959 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 17323 TO 21037  
PROJECTED ANSWERS: 1 TO 80

L7 1 SEA SSS SAM L2

=> s 13

SAMPLE SEARCH INITIATED 18:40:03 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 34 TO ITERATE

100.0% PROCESSED 34 ITERATIONS 2 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 331 TO 1029  
PROJECTED ANSWERS: 2 TO 124

L8 2 SEA SSS SAM L3

McIntosh

10/908,624

=> s 14

SAMPLE SEARCH INITIATED 18:40:05 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 46 TO ITERATE

100.0% PROCESSED 46 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 514 TO 1326  
PROJECTED ANSWERS: 0 TO 0

L9 0 SEA SSS SAM L4

=> s 15

SAMPLE SEARCH INITIATED 18:40:08 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 40 TO ITERATE

100.0% PROCESSED 40 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 421 TO 1179  
PROJECTED ANSWERS: 1 TO 80

L10 1 SEA SSS SAM L5

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.76	1.97

FILE 'CAPLUS' ENTERED AT 18:40:31 ON 26 DEC 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 26 Dec 2006 VOL 146 ISS 1  
FILE LAST UPDATED: 25 Dec 2006 (20061225/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 16

L11 1835 L6

=> s 17

L12 2 L7

=> s 18

L13 60 L8

=> s 19

L14 0 L9

=> s 110

L15 1 L10

=> d bib abs hitstr 1-2 112

L12 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

McIntosh

10/908,624

AN 1968:3159 CAPLUS  
 DN 68:3159  
 TI Pyrimidine nucleosides  
 PA Merck and Co., Inc.  
 SO Neth. Appl., 21 pp.  
 CODEN: NAXXAN  
 DT Patent  
 LA Dutch  
 FAN.CNT 1

*cl. 39154  
 treat bacterial  
 infections*

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	NL 6614805		19670425	NL 1966-14805	19661020
	DE 1620047			DE	
	FR 1502956			FR	
	GB 1117039			GB	
	US 3346561		19671010	US 1965-505029	19651024
PRAI	US		19651024		

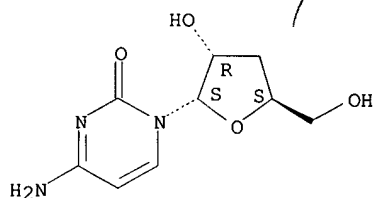
AB The preparation of the  $\alpha$ - and  $\beta$ -anomers of 1-(3-deoxy-D-ribofuranosyl)pyrimidines by treating a 3-deoxy-D-ribofuranosyl halide with a 2,4-dialkoxypyrimidine and subsequent solvolysis of the product obtained is described. Thus, a solution of 2,5-di-O-benzoyl-3-deoxy- $\beta$ -D-ribofuranosyl bromide (prepared from 2 g. methyl 2,5-di-O-benzoyl-3-deoxy- $\beta$ -D-ribofuranoside) in 20 ml. anhydrous  $\text{CH}_2\text{Cl}_2$  was treated with stirring with a solution of 1.9 g. 2,4-dimethoxy-5-fluoropyrimidine in 80 ml. anhydrous  $\text{CH}_2\text{Cl}_2$  for 80 hrs. at  $25^\circ$  to give 39% 1-(2,5-di-O-benzoyl-3-deoxy- $\beta$ -D-ribofuranosyl)-5-fluoro-4-methoxy-2(1H)-pyrimidinone (I), m.  $148-50^\circ$ ,  $[\alpha]_D^{27} 0.578$ ,  $[\alpha]_D^{24} 0.64$ ,  $\text{CHCl}_3$ ). A solution of 234 mg. I in 5 ml. MeOH and 0.6 ml. 2.5N NaOH was heated 1.5 hrs. at  $60^\circ$  and evaporated to dryness, the residue (428 mg.) dissolved in 10 ml.  $\text{H}_2\text{O}$ , and the solution treated with 1 g. Dowex 50 ( $\text{H}^+$ ) resin and stirred 10 min. to yield 65% 5-fluoro-3'-deoxyuridine, m.  $166.5-7.5^\circ$ ,  $[\alpha]_D^{30} 0.30$ ,  $[\alpha]_D^{33} 0.33$  (c 1.1,  $\text{H}_2\text{O}$ ). A mixture of 94 mg. I and 1.4 ml. EtOH saturated at  $0^\circ$  with  $\text{NH}_3$  was heated in a closed tube 12 hrs. at  $100^\circ$  to yield 68% 3'-deoxy-5-fluorocytidine hydrogen sulfate, m.  $175-6^\circ$ ,  $[\alpha]_D^{41} 0.41$ ,  $[\alpha]_D^{45} 0.51$ ,  $\text{H}_2\text{O}$ ). Similar reaction of 4.47 g. 2,4-dimethoxy-5-methylpyrimidine and 6.67 g. 2,5-di-O-p-nitrobenzoyl-3-deoxy- $\beta$ -D-ribofuranosyl bromide gave 420 mg. pure 1-(2,5-di-O-p-nitrobenzoyl-3-deoxy- $\beta$ -D-ribofuranosyl)-4-methoxy-5-methyl-2(1H)-pyrimidinone (II), m.  $163-7^\circ$  (EtOAc, petr. ether). Further elution of the column with  $\text{CHCl}_3$  gave 500 mg. II, m.  $217-18^\circ$  which when recrystd. from a mixture of  $\text{CHCl}_3$  and MeOH gave 440 mg. II, m.  $218-19^\circ$ . Repeated crystallization of the  $\alpha$ -rich fractions gave 710 mg.  $\alpha$ -D-anomer, m.  $218-20^\circ$ . A total of 18%  $\alpha$ - and 28%  $\beta$ -II was obtained. A mixture of 400 mg. II and 5 ml. MeOH, saturated with  $\text{NH}_3$  at  $0^\circ$  was heated 16 hrs. at  $100^\circ$  and worked up to yield 52% 1-(3-deoxy- $\beta$ -D-ribofuranosyl)-5-methylcytosine, m.  $223-6^\circ$ ,  $[\alpha]_D^{30} 0.30$ ,  $[\alpha]_D^{32} 0.59$ ,  $\text{H}_2\text{O}$ ). A suspension of 960 mg. II in 21 ml. anhydrous MeOH was treated with 60 mg. Na in 3 ml. MeOH, the solution refluxed 1.25 hrs., evaporated to dryness, 30 ml.  $\text{H}_2\text{O}$  added and further worked up with Et<sub>2</sub>O to yield 66% 1-(3-deoxy- $\beta$ -D-ribofuranosyl)-4-methoxy-5-methyl-2(1H)-pyrimidinone (III), m.  $185-7^\circ$ ,  $[\alpha]_D^{157} -157^\circ$ ,  $[\alpha]_D^{166} -166^\circ$  (c 0.99,  $\text{H}_2\text{O}$ ). A solution of 1.54 g. II in 34 ml. anhydrous MeOH was treated with 100 mg. Na in 3 ml. anhydrous MeOH, the mixture refluxed 1 hr., solvent removed, the residue treated with  $\text{H}_2\text{O}$ , filtered, washed with  $\text{H}_2\text{O}$ , and the filtrate treated with 15 g. Dowex 50W ( $\text{H}^+$ ) resin and worked up to yield 258 mg. III, m.  $196-8^\circ$  (MeOH),  $[\alpha]_D^{278} 0.278$  (c 0.765,  $\text{H}_2\text{O}$ ). A solution of 279 mg. III in 10 ml. anhydrous MeOH was treated with 1 ml. 30% HCl in MeOH and the solution kept 6 days at  $25^\circ$  and evaporated to dryness to yield 76% 1-(3-deoxy- $\alpha$ -D-ribofuranosyl)-5-methyluracil (IV), m.  $188-91^\circ$  (MeOH),  $[\alpha]_D^{112} -112^\circ$ ,  $[\alpha]_D^{158} -118^\circ$  (c 0.17,  $\text{H}_2\text{O}$ ). A similar treatment of III, m.  $196-8^\circ$ , gave 81% IV m.  $96-100^\circ$ , solidified and m.  $155-7^\circ$ ,  $[\alpha]_D^{14} 1.4^\circ$ ,  $[\alpha]_D^{158} 2.3^\circ$  (c 0.44,  $\text{H}_2\text{O}$ ). Also prepared was 11% 1-(2,5-di-O-p-nitrobenzoyl-3-deoxy- $\beta$ -D-ribofuranosyl)-4-methoxy-2(1H)-pyrimidinone (V), m.  $193-4^\circ$  (EtOAc-petroleum ether),  $[\alpha]_D^{9.2} -9.2^\circ$  (c 1.09,  $\text{CHCl}_3$ ). Treatment of 760 mg. V in 17 ml. anhydrous MeOH with 60 mg. Na in 3 ml. anhydrous MeOH as described above gave 46% 1-(3-deoxy- $\alpha$ -D-ribofuranosyl)-4-methoxy-2(1H)-pyrimidinone (VI), m.  $209-11^\circ$ ,  $[\alpha]_D^{182} -182^\circ$ ,  $[\alpha]_D^{158} -194^\circ$  (c 0.263,  $\text{H}_2\text{O}$ ). Also prepared was 75% 1-(3-deoxy- $\beta$ -D-ribofuranosyl)-4-methoxy-2(1H)-pyrimidinone, m.  $187-91^\circ$ . Reaction of 130 mg. VI in 5 ml. MeOH with 0.5 ml. 31% HCl in MeOH gave 27% 1-(3-deoxy- $\alpha$ -D-

10/908,624

ribofuranosyl)uracil m. 125.5-6.5° (MeOH-Et<sub>2</sub>O), [α]<sub>D</sub> -134°, [α]<sub>578</sub> -141° (c 0.134, H<sub>2</sub>O). A solution of 300 mg. V in 4 ml. MeOH saturated with NH<sub>3</sub> at 0° was heated overnight at 100°, evaporated to dryness, 20 ml. H<sub>2</sub>O added, the mixture filtered and worked up to yield 82% 1-(3-deoxy-α-D-ribofuranosyl)cytosine, m. 225-9°, [α]<sub>D</sub> -130°, [α]<sub>578</sub> -141° (c 0.73, H<sub>2</sub>O). Also prepared was 80% 1-(3-deoxy-β-D-ribofuranosyl)cysotine, m. 224-30°, [α]<sub>D</sub> 54°, [α]<sub>578</sub> 58° (c 0.71, H<sub>2</sub>O).

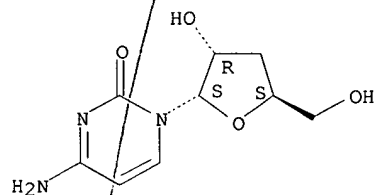
IT 7139-62-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 7139-62-0 CAPLUS  
CN Cytosine, 1-(3-deoxy-α-D-erythro-pentofuranosyl)- (7CI, 8CI) (CA  
INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1966:93783 CAPLUS  
DN 64:93783  
OREF 64:17699c-d  
TI 3'-Deoxynucleosides. IV. Pyrimidine 3'-deoxynucleosides  
AU Walton, Edward; Holly, Frederick W.; Boxer, George E.; Nutt, Ruth F.  
CS Merck Sharp & Dohme Res. Lab., Rahway, NJ  
SO Journal of Organic Chemistry (1966), 31(4), 1163-9  
CODEN: JOCEAH; ISSN: 0022-3263  
DT Journal  
LA English  
AB cf. CA 63, 18243a. The 1-(3-deoxy-D-erythro-pentofuranosyl) derivs. of uracil, cytosine, thymine, and 5-methylcytosine were synthesized via Hilbert-Johnson reactions of 2,5-di-O-acyl-3-deoxy-D-erythro-pentofuranosyl bromide with the appropriate 2,4-dialkoxypyrimidine followed by methanolysis or ammonolysis. Both anomers were produced although the trans rule predicts that only trans (β) coupling products would be formed. The optical rotations of the anomeric pairs were found to be the reverse of those predicted by Hudson's rules of isorotation. Assignments of the anomeric configuration of the products and intermediates were made, in part, on the basis of N.M.R. as well as optical rotatory dispersion. Some properties characteristic of the anomers are tabulated.  
IT 7139-62-0P, Cytosine, 1-(3-deoxy-α-D-erythro-pentofuranosyl)-  
RL: PREP (Preparation)  
(preparation of)  
RN 7139-62-0 CAPLUS  
CN Cytosine, 1-(3-deoxy-α-D-erythro-pentofuranosyl)- (7CI, 8CI) (CA  
INDEX NAME)

Absolute stereochemistry.



*uses for back for m*

McIntosh

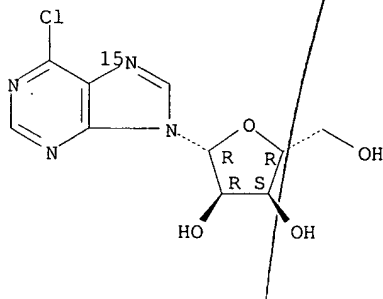


10/908,624

=> d bib abs hitstr 1 115

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1995:938831 CAPLUS  
DN 124:117872  
TI Syntheses of [6,7-<sup>15</sup>N]-Adenosine, [6,7-<sup>15</sup>N]-2'-Deoxyadenosine, and  
[7-<sup>15</sup>N]-Hypoxanthine  
AU Pagano, Alex R.; Lajewski, Wayne M.; Jones, Roger A.  
CS Department of Chemistry, Rutgers, State University of New Jersey,  
Piscataway, NJ, 08855, USA  
SO Journal of the American Chemical Society (1995), 117(47), 11669-72  
CODEN: JACSAT; ISSN: 0002-7863  
PB American Chemical Society  
DT Journal  
LA English  
AB We have developed a high-yield route for the synthesis of  
[7-<sup>15</sup>N]-hypoxanthine in four steps in an overall yield of 81%. This  
procedure uses [<sup>15</sup>N]-sodium nitrite as the <sup>15</sup>N source and an inexpensive  
pyrimidine to provide an economical route to this useful <sup>15</sup>N-labeled  
intermediate. Conversion to [7-<sup>15</sup>N]-6-chloropurine followed by enzymic  
trans-glycosidation gives the corresponding ribo- and 2'-  
deoxyribonucleosides. Ammonolysis of the 6-chloro moiety to give the  
[6,7-<sup>15</sup>N]-labeled nucleosides is effected simply and in high yield using 2  
equiv of [<sup>15</sup>N]-ammonium chloride and 3 equiv of potassium bicarbonate.  
IT 173170-82-6P  
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological  
study); PREP (Preparation); RACT (Reactant or reagent)  
(syntheses of N-14 labeled nucleosides with labeled sodium nitrite)  
RN 173170-82-6 CAPLUS  
CN 9H-Purine-7-<sup>15</sup>N, 6-chloro-9-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d his

(FILE 'HOME' ENTERED AT 18:37:47 ON 26 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:38:15 ON 26 DEC 2006

L1	STRUCTURE UPLOADED
L2	STRUCTURE UPLOADED
L3	STRUCTURE UPLOADED
L4	STRUCTURE UPLOADED
L5	STRUCTURE UPLOADED
L6	24 S L1
L7	1 S L2
L8	2 S L3
L9	0 S L4
L10	1 S L5

FILE 'CAPLUS' ENTERED AT 18:40:31 ON 26 DEC 2006

L11	1835 S L6
L12	2 S L7
L13	60 S L8
L14	0 S L9
L15	1 S L10

=> s 111 or 113

L16 1891 L11 OR L13

=> s 116 and hcv

11641 HCV

McIntosh

10/908,624

22 HCVS  
11645 HCV  
(HCV OR HCVS)  
L17 24 L16 AND HCV

=> d bib abs hitstr 1-24 117

L17 ANSWER 1 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2005:1261770 CAPLUS  
DN 144:7097  
TI Preparation of macrocyclic carboxylic acid derivatives as inhibitors of  
HCV replication  
IN Blatt, Lawrence M.; Andrews, Steven W.; Condroski, Kevin R.; Doherty,  
George A.; Jiang, Yutong; Josey, John A.; Kennedy, April L.; Madduru,  
Machender R.; Stengel, Peter J.; Wenglowky, Steven M.; Woodard, Benjamin  
T.; Woodard, Laura  
PA USA  
SO U.S. Pat. Appl. Publ., 228 pp., Cont.-in-part of U.S. Ser. No. 64,445.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005267018	A1	20051201	US 2005-93884	20050329
	WO 2005037214	A2	20050428	WO 2004-US33970	20041013
	WO 2005037214	A3	20051103		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2003-511541P	P	20031014		
	US 2004-558161P	P	20040330		
	US 2004-562418P	P	20040414		
	US 2004-612381P	P	20040922		
	US 2004-612460P	P	20040922		
	WO 2004-US33970	A1	20041013		
	US 2005-64445	A2	20050223		
OS	MARPAT 144:7097				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to macrocyclic compds., e.g., I [Q is  
(un)substituted 2-isoindolinyl, 2-isoquinolinyl, 1-benzoazetidiny, 1-indolinyl, (3,4-dehydro)pyrrolidino, (3,4-dehydro)piperidino or Q is  
R3-R4, where R3 is alkyl, cycloalkyl, alkylcycloalkyl, Ph, pyridyl and  
other heterocyclic groups and R4 is H, Ph, pyridyl and other heterocyclic  
groups; V is O, S, NH; W is O, NR5 or CR5, where R5 is H, alkyl,  
fluoroalkyl, cycloalkyl, alkylcycloalkyl; Y is a sulfonimide CONHSO2R6,  
where R6 is (un)substituted alkyl, fluoroalkyl, cycloalkyl,  
alkylcycloalkyl, aryl, heteroaryl or (un)substituted phenyl; or Y is  
carboxy or a pharmaceutically-acceptable salt or prodrug; R1 is H,  
(un)substituted alkyl, cycloalkyl, alkylcycloalkyl, Ph or benzyl; R2 is H,  
alkyl, (thio)carbonyl, acyl, or sulfonyl group; the dashed line  
represents an optional double bond], for use in pharmaceutical compns. for  
the treatment of hepatitis C virus (HCV) infection and liver  
fibrosis. Thus, compound II, prepared by reaction of the macrocyclic prolinol  
derivative with CDI and 4-fluoro-2,3-dihydro-1H-isoindole, showed IC50 and  
EC50 < 0.1  $\mu$ M in the NS3-NS4A protease inhibition assay and did not  
display toxicity in Rattus sp. when dosed for seven days at 30 mg/kg BID,  
providing at least a 10-fold safety margin above the presumptive  
efficacious dose (3 mg/kg) that yields liver concns. 100-fold in excess of  
the replicon EC50 value of the compound  
IT 7481-89-2

McIntosh

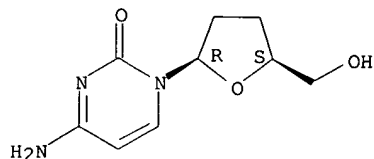
10/908,624

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preparation of macrocyclic carboxylic acid derivs. as inhibitors of  
HCV replication)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L17 ANSWER 2 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1151410 CAPLUS

DN 145:336253

TI Synthesis and in vitro anti-HCV activity of  $\beta$ -D- and  
L-2'-deoxy-2'-fluororibonucleosides

AU Shi, Junxing; Du, Jinfang; Ma, Tianwei; Pankiewicz, Krzysztof W.; Patterson,  
Steven E.; Hassan, Abdalla E. A.; Tharnish, Phillip M.; McBrayer, Tamara  
R.; Lostia, Stefania; Stuyver, Lieven J.; Watanabe, Kyoichi A.; Chu, Chung  
K.; Schinazi, Raymond F.

CS Pharmasset, Inc., Tucker, GA, USA

SO Nucleosides, Nucleotides & Nucleic Acids (2005), 24(5-7), 875-879

CODEN: NNNAFY; ISSN: 1525-7770

PB Taylor & Francis, Inc.

DT Journal

LA English

OS CASREACT 145:336253

AB Based on the discovery of  $\beta$ -D-2'-deoxy-2'-fluorocytidine as a potent  
anti-hepatitis C virus (HCV) agent, a series of  $\beta$ -D- and  
L-2'-deoxy-2'-fluororibonucleosides with modifications at 5 and/or 4  
positions were synthesized and evaluated for their in vitro activity  
against HCV and bovine viral diarrhea virus (BVDV). The  
introduction of the 2'-fluoro group was achieved by either fluorination of  
2,2'-anhydronucleosides with hydrogen fluoride-pyridine or potassium  
fluoride, or a fluorination of arabinonucleosides with DAST. Among the  
analogues synthesized, only the 5-fluoro compounds, namely  
 $\beta$ -D-2'-deoxy-2',5-difluorocytidine, had anti-HCV activity  
in the subgenomic HCV replicon cell line, and inhibitory  
activity against rRNA. As  $\beta$ -D-N4-hydroxycytidine (NHC) had  
previously shown potent anti-HCV activity, the two  
functionalities of the N4-hydroxyl and the 2'-fluoro were combined into  
one molecule, yielding  $\beta$ -D-2'-deoxy-2'-fluoro-N4-hydroxycytidine.  
However, this nucleoside showed neither anti-HCV activity nor  
toxicity. All the L-forms of the analogues were devoid of anti-HCV  
activity. None of the compounds showed anti-BVDV activity, suggesting that  
the BVDV system cannot reliably predict anti-HCV activity in  
vitro.

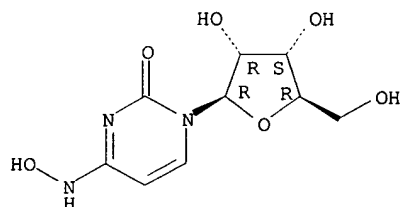
IT 3258-02-4

RL: PAC (Pharmacological activity); BIOL (Biological study)  
(preparation and anti-HCV, anti-BVDV, rRNA inhibition activity of  
 $\beta$ -D- and L-2'-deoxy-2'-fluororibonucleosides via fluorination of  
anhydronucleosides and arabinonucleosides)

RN 3258-02-4 CAPLUS

CN Uridine, 4-oxime (9CI) (CA INDEX NAME)

Absolute stereochemistry.



McIntosh

10/908,624

RE.CNT 14      THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1106860 CAPLUS

DN 143:367596

TI Preparation of macrocyclic carboxylic acids or sulfonamides as inhibitors  
of HCV replication

IN Blatt, Lawrence M.; Wenglowky, Steven M.; Andrews, Steven W.; Condroski,  
Kevin R.; Jiang, Yutong; Kennedy, April L.; Doherty, George A.; Josey,  
John A.; Stengel, Peter J.; Woodard, Benjamin T.; Madduru, Machender R.

PA Intermune, Inc., USA

SO PCT Int. Appl., 444 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005095403	A2	20051013	WO 2005-US10494	20050329
	WO 2005095403	A3	20051201		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2005228894	A1	20051013	AU 2005-228894	20050329
	CA 2560897	A1	20051013	CA 2005-2560897	20050329
PRAI	US 2004-558161P	P	20040330		
	US 2004-562418P	P	20040414		
	US 2004-612381P	P	20040922		
	US 2004-612460P	P	20040922		
	WO 2005-US10494	W	20050329		
OS	MARPAT 143:367596				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to macrocyclic compds., e.g., I [Q is (un)substituted 2-isoindoliny, 2-isoquinoliny, 1-benzoazetidiny, 1-indoliny, (3,4-dehydro)pyrrolidino, (3,4-dehydro)piperidino or Q is R3-R4, where R3 is alkyl, cycloalkyl, alkylcycloalkyl, Ph, pyridyl and other heterocyclic groups and R4 is H, Ph, pyridyl and other heterocyclic groups; V is O, S, NH; W is O, NR5 or CR5, where R5 is H, alkyl, fluoroalkyl, cycloalkyl, alkylcycloalkyl; Y is a sulfonimide CONHSO2R6, where R6 is (un)substituted alkyl, fluoroalkyl, cycloalkyl, alkylcycloalkyl, aryl, heteroaryl or (un)substituted phenyl; or Y is carboxy or a pharmaceutically-acceptable salt or prodrug; R1 is H, (un)substituted alkyl, cycloalkyl, alkylcycloalkyl, Ph or benzyl; R2 is H, alkyl, (thio)carbamoyl, acyl, or sulfonyl group; the dashed line represents an optional double bond], for use in pharmaceutical compns. for the treatment of flaviviral or hepatitis C virus (HCV) infection and liver fibrosis. Thus, compound II, prepared by reaction of the macrocyclic prolinol derivative with CDI and 4-fluoro-2,3-dihydro-1H-isoindole, showed IC50 and EC50 < 0.1 µM in the NS3-NS4A protease inhibition assay and did not display toxicity in Rattus sp. when dosed for seven days at 30 mg/kg BID, providing at least a 10-fold safety margin above the presumptive efficacious dose (3 mg/kg) that yields liver concns. 100-fold in excess of the replicon EC50 value of the compound

IT 7481-89-2

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preparation of macrocyclic carboxylic acids or sulfonamides as inhibitors of HCV replication)

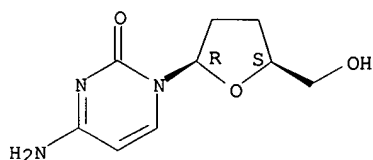
RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

McIntosh

10/908,624

Absolute stereochemistry. Rotation (+).



L17 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:371064 CAPLUS

DN 142:430532

TI Preparation of macrocyclic carboxylic acids and acylsulfonamides as inhibitors of HCV replication

IN Blatt, Lawrence M.; Wenglow, Steven Mark; Andrews, Steven Wade; Jiang, Yutong; Kennedy, April Layne; Condroski, Kevin Ronald; Josey, John Anthony; Stengel, Peter John; Madduru, Machender R.; Doherty, George Andrew; Woodard, Benjamin T.

PA Intermune, Inc., USA; Array Biopharma Inc.

SO PCT Int. Appl., 244 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005037214	A2	20050428	WO 2004-US33970	20041013
	WO 2005037214	A3	20051103		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2004281780	A1	20050428	AU 2004-281780	20041013
	CA 2540858	A1	20050428	CA 2004-2540858	20041013
	EP 1680137	A2	20060719	EP 2004-795169	20041013
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR			
	US 2005267018	A1	20051201	US 2005-93884	20050329
	NO 2006002089	A	20060509	NO 2006-2089	20060509
PRAI	US 2003-511541P	P	20031014		
	US 2004-612460P	P	20040922		
	US 2004-558161P	P	20040330		
	US 2004-562418P	P	20040414		
	US 2004-612381P	P	20040922		
	WO 2004-US33970	W	20041013		
	US 2005-64445	A2	20050223		
OS	MARPAT 142:430532				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to macrocyclic compds., e.g., tetrahydroisoquinolinecarboxylic acid derivs. I [R1, R2 are independently H, halo, cyano, hydroxy, alkyl, alkoxy; R5 is a carbamoyl, acyl or carboxy ester; Y is a sulfonimide CONHSO2R9, where R9 is alkyl, cycloalkyl or (un)substituted phenyl; or Y is carboxylic acid or pharmaceutically-acceptable salt or prodrug; R10, R11 are independently H or alkyl or C10R11 is cyclopropyl, cyclobutyl, cyclopentyl or cyclohexyl; W is O or NH; the dashed line represents an optional double bond], for use in pharmaceutical compns. for the treatment of hepatitis C virus (HCV) infection and liver fibrosis. Thus, compound II, prepared by reaction of the macrocyclic prolinol derivative with CDI and 4-fluoro-2,3-dihydro-1H-

McIntosh

10/908,624

isoindole, showed IC<sub>50</sub> and EC<sub>50</sub> < 0.1  $\mu$ M in the NS3-NS4A protease inhibition assay and did not display toxicity in Rattus sp. when dosed for seven days at 30 mg/kg BID, providing at least a 10-fold safety margin above the presumptive efficacious dose (3 mg/kg) that yields liver concns. 100-fold in excess of the replicon EC<sub>50</sub> value of the compound

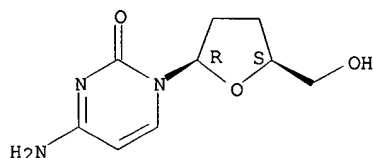
IT 7481-89-2, 2' 3' Dideoxycytidine

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preparation of macrocyclic carboxylic acids and acylsulfonamides as inhibitors of HCV replication)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L17 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:185375 CAPLUS

DN 142:254563

TI Antimetabolite antiviral dosing regimen for hepatitis C virus or flaviviridae therapy

IN Stuyver, Lieven J.

PA Belg.

SO U.S. Pat. Appl. Publ., 23 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005049220	A1	20050303	US 2004-921052	20040818
PRAI	US 2003-496202P	P	20030618		

AB An anti-hepatitis C agent which is an antimetabolite to the host and cannot be administered on a daily or chronic basis as is usual in antiviral therapy (referred to below as an "anti-HCV antimetabolite"), can be administered using a traditional anticancer dosing regimen (for example via i.v. or parenteral injection), over a period of 1-7 days followed by cessation of therapy until rebound of the viral load is noted. This dosing regimen runs counter to conventional antiviral experience, wherein effective agents are usually administered over at least fourteen days of sustained therapy, and typically on an indefinite daily basis.

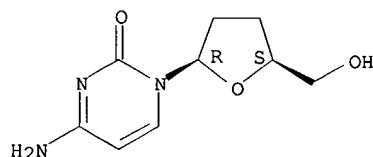
IT 7481-89-2, Zalcitabine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antimetabolite antiviral dosing regimen for hepatitis C virus or flaviviridae therapy)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L17 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:177803 CAPLUS

DN 142:254560

TI Antimetabolite antiviral dosing regimen for hepatitis C virus or flaviviridae therapy

McIntosh

10/908,624

IN Stuyver, Lieven J.  
PA Pharmasset, Inc., USA  
SO PCT Int. Appl., 61 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005018330	A1	20050303	WO 2004-US26686	20040817
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRAI US 2003-496202P P 20030818

AB An anti-hepatitis C agent which is an anti-metabolite to the host and cannot be administered on a daily or chronic basis as is usual in anti-viral therapy (referred to below as an "anti-HCV anti-metabolite"), can be administered using a traditional anti-cancer dosing regimen (for example via i.v. or parenteral injection), over a period of 1-7 days followed by cessation of therapy until rebound of the viral load is noted. This dosing regimen runs counter to conventional antiviral experience, wherein effective agents are usually administered over at least fourteen days of sustained therapy, and typically on an indefinite daily basis.

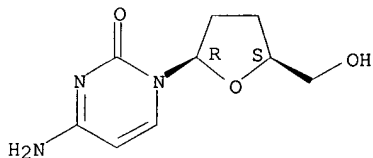
IT 7481-89-2, Zalcitabine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antimetabolite antiviral dosing regimen for hepatitis C virus or flaviviridae therapy)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1065490 CAPLUS

DN 142:147801

TI Metabolism of the anti-hepatitis C virus nucleoside  $\beta$ -D-N4-hydroxycytidine in different liver cells

AU Hernandez-Santiago, Brenda I.; Beltran, Thierry; Stuyver, Lieven; Chu, Chung K.; Schinazi, Raymond F.

CS Department of Pediatrics, Emory School of Medicine, Decatur, USA

SO Antimicrobial Agents and Chemotherapy (2004), 48(12), 4636-4642

CODEN: AMACQ; ISSN: 0066-4804

PB American Society for Microbiology

DT Journal

LA English

AB  $\beta$ -D-N4-Hydroxycytidine (NHC) was found to have selective anti-hepatitis C virus (HCV) activity in the HCV replicon system (clone A). The intracellular metabolism of tritiated NHC was investigated in the HCV replicon system, Huh-7 cells, HepG2 cells, and primary human hepatocytes. Incubation of cells with 10  $\mu$ M radiolabeled NHC demonstrated extensive and rapid phosphorylation in all liver cells. Besides the 5'-mono-, -di-, and -triphosphate metabolites of NHC, other metabolites were characterized. These included cytidine and

McIntosh

10/908,624

uridine mono-, di-, and triphosphates. UTP was the predominant early metabolite in Huh-7 cells and primary human hepatocytes, suggesting deamination of NHC as the primary catabolic pathway. The intracellular half-lives of radiolabeled NHC-triphosphate and of CTP and UTP derived from NHC incubation in Huh-7 cells were calculated to be  $3.0 \pm 1.3$ ,  $10.4 \pm 3.3$ , and  $13.2 \pm 3.5$  h, resp. Studies using monkey and human whole blood demonstrated more-rapid deamination and oxidation in monkey cells than in human cells, suggesting that NHC may not persist long enough in plasma to be delivered to liver cells.

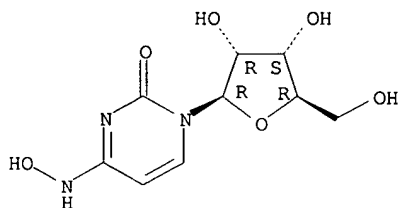
IT 3258-02-4

RL: PKT (Pharmacokinetics); BIOL (Biological study)  
(metabolism of the anti-hepatitis C virus nucleoside  $\beta$ -D-N4-hydroxycytidine in different liver cells)

RN 3258-02-4 CAPLUS

CN Uridine, 4-oxime (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:703121 CAPLUS

DN 141:207236

TI Preparation of 1,1-dioxido-4H-1,2,4-benzothiadiazines as hepatitis C polymerase inhibitors and anti-infective agents

IN Pratt, John K.; Betebenner, David A.; Donner, Pamela L.; Green, Brian E.; Kempf, Dale J.; McDaniel, Keith F.; Maring, Clarence J.; Stoll, Vincent S.; Zhang, Rong

PA USA

SO U.S. Pat. Appl. Publ., 278 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004167123	A1	20040826	US 2003-699513	20031031
PRAI	US 2002-423209P	P	20021101		
	US 2003-461784P	P	20030410		
	US 2003-489448P	P	20030723		
	US 2003-509107P	P	20031006		
OS	MARPAT 141:207236				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [wherein A = monocyclic or bicyclic ring selected from hetero/aryl, cycloalkyl, cycloalkenyl, heterocyclyl; R1 = H, (un)substituted cycloalkyl/cyclo/alkenyl, alkoxy carbonyl/alkoxy/aryl/aryls ulfonyl/arylsulfanyl/carboxy/cyano/heteroaryl/alkyl, heterocyclyl, etc.; R2, R3 = independently H, cyano, halo, (un)substituted alkenyl, alkoxy carbonyl, alkyl, heteroaryl, etc.; CR2R3C = 5- or 6-membered ring selected from Ph, pyridinyl, pyrimidinyl, pyridazinyl, thienyl, furanyl, pyrazolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, triazolyl, thiadiazolyl, tetrazolyl, cyclopentyl, and cyclohexyl; R4 = OH and derivs., halo, NH2 and derivs., etc.; R5 = independently CN, NO2, (un)substituted alk(en/yn)yl, hetero/aryl, arylsulfonyl, heterocyclyl etc.; n = 0-4; their pharmaceutically acceptable salts, stereoisomers, or tautomers] were prepared as hepatitis C (HCV) polymerase inhibitors for treating related infections. Thus II was prepared by

McIntosh



alkylation of III (preparation given) with tris(methylthio)methyl Me sulfate in AcOH, cyclization with 2-amino-4[(4-methoxymethoxy)methyl]thiophene-3-sulfonamide, deprotection, condensation with cyclopropanecarboxaldehyde, reduction with LiBH<sub>4</sub>. I inhibited HCV polymerase with IC<sub>50</sub>'s in the range of 0.002  $\mu$ M to 500  $\mu$ M. I inhibited RNA replication with EC<sub>50</sub> in the range of 0.002  $\mu$ M to > 100  $\mu$ M. I exhibited a cytopathic effect reduction with TC<sub>50</sub>'s in the range of 6.6  $\mu$ M to > 100  $\mu$ M.

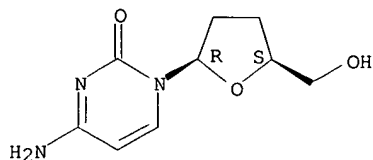
IT 7481-89-2, Zalcitabine

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(combination therapy; preparation of 1,1-dioxidobenzothiadiazines as hepatitis C polymerase inhibitors and anti-infective agents)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L17 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:453332 CAPLUS

DN 141:17577

TI Concurrent inhibiting viral replication and treating cancer by pegylated arginine deiminase, and methods for determining the sensitivity to arginine deprivation therapy

IN Clark, Mike A.

PA Phoenix Pharmacologics, Inc., USA

SO PCT Int. Appl., 89 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004046309	A2	20040603	WO 2003-US30770	20030929
	WO 2004046309	A3	20050804		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2506244	A1	20040603	CA 2003-2506244	20030929
	AU 2003282883	A1	20040615	AU 2003-282883	20030929
	US 2004131604	A1	20040708	US 2003-674666	20030929
	EP 1599217	A2	20051130	EP 2003-774504	20030929
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2006515281	T	20060525	JP 2004-553429	20030929
	CN 1809378	A	20060726	CN 2003-825264	20030929
PRAI	US 2002-427497P	P	20021118		
	WO 2003-US30770	W	20030929		

AB The present invention is directed to methods of modulating viral replication comprising administering to a patient arginine deiminase (ADI) bonded to polyethylene glycol (PEG). The present invention is also directed to methods of concurrently modulating viral replication and treating cancer, including, for example, sarcomas, hepatomas and melanomas. The present invention is also directed to methods of determining the susceptibility of an individual to arginine deprivation therapy for a viral infection, methods for improving liver function, and the like.

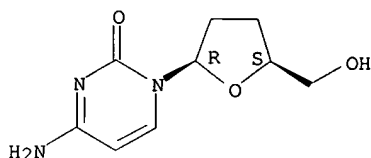
IT 7481-89-2, Zalcitabine

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(dideoxycytosine, co-treatment with; concurrent inhibiting viral replication and treating cancer by pegylated arginine deiminase, and

10/908,624

methods for determining sensitivity to arginine deprivation therapy)  
RN 7481-89-2 CAPLUS  
CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L17 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:412943 CAPLUS

DN 140:423711

TI Preparation of 1,1-dioxido-4H-1,2,4-benzothiadiazines as hepatitis C polymerase inhibitors and anti-infective agents

IN Pratt, John K.; Betebenner, David A.; Donner, Pamela L.; Green, Brian E.; Kempf, Dale J.; McDaniel, Keith F.; Maring, Clarence J.; Stoll, Vincent S.; Zhang, Rong

PA Abbott Laboratories, USA

SO PCT Int. Appl., 514 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004041818	A1	20040521	WO 2003-US34707	20031031
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	US 2004097492	A1	20040520	US 2002-285714	20021101
	US 2004087577	A1	20040506	US 2003-410853	20030410
	US 2004162285	A1	20040819	US 2003-625121	20030723
	US 2005075331	A1	20050407	US 2003-679881	20031006
	CA 2504385	A1	20040521	CA 2003-2504385	20031031
	AU 2003291670	A1	20040607	AU 2003-291670	20031031
	EP 1560827	A1	20050810	EP 2003-768559	20031031
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
	JP 2006509042	T	20060316	JP 2005-502238	20031031
PRAI	US 2002-285714	A	20021101		
	US 2003-410853	A	20030410		
	US 2003-625121	A	20030723		
	US 2003-679881	A	20031006		
	WO 2003-US34707	W	20031031		
OS	MARPAT 140:423711				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [wherein A = monocyclic or bicyclic ring selected from heteroaryl, cycloalkyl, cycloalkenyl, heterocyclyl; R1 = H, (un)substituted cycloalkyl/cycloalkenyl, alkoxycarbonyl/alkoxyaryl/arylsulfonyl/arylsulfanyl/carboxy/cyano/heteroaryl/alkyl, heterocyclyl, etc.; R2, R3 = independently H, cyano, halo, (un)substituted alkenyl, alkoxycarbonyl, alkyl, heteroaryl, etc.; CR2R3C = 5- or 6-membered ring selected from Ph, pyridinyl, pyrimidinyl, pyridazinyl, thienyl, furanyl, pyrazolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, triazolyl, thiadiazolyl, tetrazolyl, cyclopentyl, and cyclohexyl; R4 = OH

McIntosh

and derivs., halo, NH<sub>2</sub> and derivs., etc.; R<sub>5</sub> = independently CN, NO<sub>2</sub>, (un)substituted alk(en/yn)yl, hetero/aryl, arylsulfonyl, heterocyclyl etc.; n = 0-4; their pharmaceutically acceptable salts, stereoisomers, or tautomers] were prepared as hepatitis C (HCV) polymerase inhibitors for treating related infections. Thus II was prepared by alkylation of III (preparation given) with tris(methylthio)methyl Me sulfate in AcOH, cyclization with 2-amino-4[(4-methoxymethoxy)methyl]thiophene-3-sulfonamide, deprotection, condensation with cyclopropanecarboxaldehyde, reduction with LiBH<sub>4</sub>. I inhibited HCV polymerase with IC<sub>50</sub>'s in the range of 0.002  $\mu$ M to 500  $\mu$ M. I inhibited RNA replication with EC<sub>50</sub> in the range of 0.002  $\mu$ M to > 100  $\mu$ M. I exhibited a cytopathic effect reduction with TC<sub>50</sub>'s in the range of 6.6  $\mu$ M to > 100  $\mu$ M.

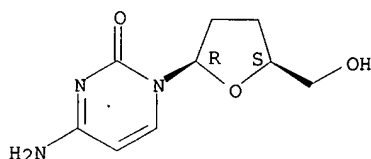
IT 7481-89-2, Zalcitabine

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(combination therapy; preparation of 1,1-dioxidobenzothiadiazines as hepatitis C polymerase inhibitors and anti-infective agents)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L17 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:332156 CAPLUS

DN 140:399402

TI Depletion of mitochondrial DNA in liver under antiretroviral therapy with didanosine, stavudine, or zalcitabine

AU Walker, Ulrich A.; Baeuerle, Jochen; Laguno, Montse; Murillas, Javier; Mauss, Stefan; Schmutz, Guenther; Setzer, Bernhard; Miquel, Rosa; Gatell, Jose M.; Mallolas, Josep

CS Department of Clinical Immunology, Medizinische Universitaetsklinik, Freiburg, Germany

SO Hepatology (Hoboken, NJ, United States) (2004), 39(2), 311-317  
CODEN: HPTLD9; ISSN: 0270-9139

PB John Wiley & Sons, Inc.

DT Journal

LA English

AB The "D drug" HIV reverse-transcriptase inhibitors zalcitabine, didanosine, and stavudine are relatively strong inhibitors of polymerase-gamma compared with the "non-D drugs" zidovudine, lamivudine, and abacavir. D drugs deplete mitochondrial DNA (mtDNA) in cultured hepatocytes. This mtDNA depletion is associated with an increased in vitro production of lactate. To investigate the origin of hyperlactatemia in HIV-infected patients and the effects of antiretroviral therapy on liver mtDNA, we biopsied liver tissue from 94 individuals with chronic hepatitis C virus (HCV) infection. Eighty subjects were coinfectd with HIV. Serum lactate was measured at the time of biopsy. Hepatic mtDNA and liver histol. were centrally assessed. Liver mtDNA content of HIV-infected patients receiving D drugs at the time of biopsy (n = 34) was decreased by 47% (P<.0001) compared with those without D drugs (n = 35). Aside from a possible association between HCV genotype 1 status and mtDNA depletion in multivariate anal., there were no other virol., immunol., histol., demog. or treatment-related variables that could explain the mtDNA depletion. Lactate was above the upper limit of normal in only three patients, all of whom were treated with D drugs. The mtDNA in each of them was lower than in any non-D drug patient and significantly (P = .017) depleted compared with D drug patients with normal lactate. In conclusion, D drug treatment is associated with decreased hepatic mtDNA in HIV-infected patients with chronic HCV infection. Moderate mtDNA depletion in liver does not necessarily lead to hyperlactatemia, but more pronounced decreases in hepatic mtDNA may be an important contributor to lactate elevation.

IT 7481-89-2, Zalcitabine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(depletion of mitochondrial DNA in liver under antiretroviral therapy

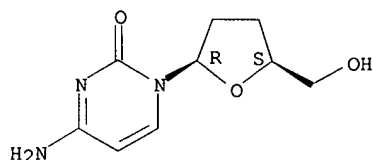
10/908,624

with didanosine, stavudine, or zalcitabine)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:920253 CAPLUS

DN 140:350071

TI Effect of antiretroviral therapy on liver-related mortality in patients with HIV and hepatitis C virus coinfection

AU Qurishi, Nazifa; Kreuzberg, Christina; Luechters, Guido; Effenberger, Wolfgang; Kupfer, Bernd; Sauerbruch, Tilman; Rockstroh, Juergen K.; Spengler, Ulrich

CS Department of Internal Medicine, University of Bonn, Bonn, D-53105, Germany

SO Lancet (2003), 362(9397), 1708-1713

CODEN: LANCAG; ISSN: 0140-6736

PB Elsevier Science Ltd.

DT Journal

LA English

AB Highly active antiretroviral therapy (HAART) has improved the prognosis of HIV infection. However, replication of hepatitis C virus (HCV) is not inhibited by HAART, and treatment-related hepatotoxicity is common. To clarify the effect of HAART in HIV/HCV-coinfected patients, we studied liver-related mortality and overall mortality in 285 patients who were regularly treated during the period 1990-2002 at our department. Survival was analyzed retrospectively by Kaplan-Meier and Cox's regression analyses after patients (81% hemophiliacs) had been stratified into three groups according to their antiretroviral therapy (HAART n=93, available after 1995; treatment exclusively with nucleoside analogs n=55, available after 1992; or no treatment, n=137). Liver-related mortality rates were 0.45, 0.69, and 1.70 per 100 person-years in the HAART, antiretroviral-treatment, and untreated groups. Kaplan-Meier anal. of liver-related mortality confirmed the significant survival benefit in patients with antiretroviral therapy, and regression anal. identified HAART (odds ratio 0.106 [95% CI 0.020-0.564]), antiretroviral treatment (0.283 [0.103-0.780]), CD4-pos. T-cell count (0.746 [0.641-0.868] per 0.05+109 cells/L), serum cholinesterase (0.962 [0.938-0.986] per 100 U/L), and age (1.065 [1.027-1.105] per yr) as independent predictors of liver-related survival. Severe drug-related hepatotoxicity was seen in five patients treated with nucleoside analogs alone and 13 treated with HAART. No patient died from drug-related hepatotoxicity. In addition to improved overall survival, antiretroviral therapy significantly reduced long-term liver-related mortality in our patients. This survival benefit seems to outweigh by far the associated risks of severe hepatotoxicity.

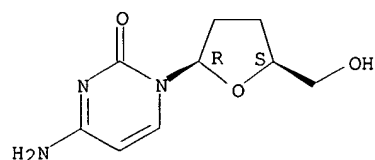
IT 7481-89-2, Zalcitabine

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antiretroviral therapy effect on liver-related mortality in patients with HIV and hepatitis C virus coinfection)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



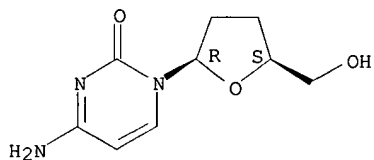
McIntosh

10/908,624

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:772804 CAPLUS  
DN 140:296896  
TI Risk of severe hepatotoxicity associated with antiretroviral therapy in the HIV-NAT Cohort, Thailand, 1996-2001  
AU Law, W. Phillip; Dore, Gregory J.; Duncombe, Chris J.; Mahanontharit, Apicha; Boyd, Mark A.; Ruxrungtham, Kiat; Lange, Joep M.; Phanuphak, Praphan; Cooper, David A.  
CS National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Sydney, 2010, Australia  
SO AIDS (London, United Kingdom) (2003), 17(15), 2191-2199  
CODEN: AIDSET; ISSN: 0269-9370  
PB Lippincott Williams & Wilkins  
DT Journal  
LA English  
AB The aim was to examine rates and predictors of severe hepatotoxicity with combination antiretroviral therapy in a developing country setting: the eight HIV-NAT randomized controlled trials in Thailand. All patients (n = 692) received at least two nucleoside reverse transcriptase inhibitors; 215 also received a non-nucleoside reverse transcriptase inhibitor (NNRTI) and 135 also received a protease inhibitor. Severe hepatotoxicity was defined as an increase in alanine aminotransferase (ALT) level to five times the upper limit of normal and an increase of at least 100 U/l from baseline. Liver function tests were available at baseline and weeks 4, 8, 12, 24, 36 and 48. Hepatitis B virus (HBV) and hepatitis C virus (HCV) testing was performed on stored serum. Mean age was 32.3 yr; 52% were male, 11% had Centers for Disease Control and Prevention category C HIV disease at baseline, and 22% had received prior antiretroviral therapy. Prevalence of HBV, HCV and HBV/HCV coinfection was 8.7%, 7.2%, and 0.4%, resp. Incidence of severe hepatotoxicity was 6.1/100 person-years [95% confidence interval (CI), 4.3-8.3/100]. In multivariate anal., predictors of severe hepatotoxicity were HBV or HCV coinfection, and NNRTI-containing therapy. Incidence of severe hepatotoxicity was particularly high among patients receiving nevirapine (18.5/100 person-years; 95% CI, 11.6-27.8) and nevirapine/efavirenz (44.4/100 person-years; 95% CI, 12.1-113.7). Incidence and risk factors for severe hepatotoxicity appear similar among these Thai patients to those in other racial groups. Development of standardized antiretroviral therapy regimens for developing country settings should consider potential toxicity and capabilities for monitoring of toxicity.  
IT 7481-89-2, Zalcitabine  
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(risk of severe hepatotoxicity associated with antiretroviral therapy in HIV-infected patients)  
RN 7481-89-2 CAPLUS  
CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



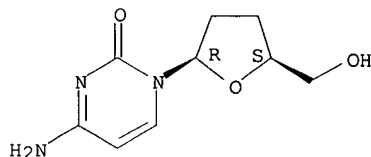
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:347498 CAPLUS  
DN 139:47738  
TI Performance characteristics of the TRUGENE HIV-1 genotyping kit and the OpenGene DNA sequencing system  
AU Kuritzkes, Daniel R.; Grant, Robert M.; Feorino, Paul; Griswold, Marshal; Hoover, Marie; Young, Russell; Day, Stephen; Lloyd, Robert M., Jr.; Reid, Caroline; Morgan, Gillian F.; Winslow, Dean L.  
CS Division of Infectious Diseases, University of Colorado Health Sciences

McIntosh

Center, Denver, CO, USA  
 SO Journal of Clinical Microbiology (2003), 41(4), 1594-1599  
 CODEN: JCMIDW; ISSN: 0095-1137  
 PB American Society for Microbiology  
 DT Journal  
 LA English  
 AB The TRUGENE HIV-1 Genotyping Kit and OpenGene DNA Sequencing System are designed to sequence the protease (PR)- and reverse transcriptase (RT)-coding regions of human immunodeficiency virus type 1 (HIV-1) pol. Studies were undertaken to determine the accuracy of this assay system in detecting resistance-associated mutations and to determine the effects of RNA extraction methods, anticoagulants, specimen handling, and potentially interfering substances. Samples were plasma obtained from HIV-infected subjects or seroneg. plasma to which viruses derived from wild-type and mutant infectious mol. clones (IMC) of HIV-1 were added. Extraction methods tested included standard and UltraSensitive AMPLICOR HIV-1 MONITOR, QIAGEN viral RNA extraction mini kit, and QIAGEN Ultra HIV extraction kit, and NASBA manual HIV-1 quant. NucliSens. Sequence data from test sites were compared to a "gold standard" reference sequence to determine the percent agreement. Comparisons between test and reference sequences at the nucleotide level showed 97.5 to 100% agreement. Similar results were obtained regardless of extraction method, regardless of use of EDTA or acid citrate dextrose as anticoagulant, and despite the presence of triglycerides, bilirubin, Hb, antiretroviral drugs, HIV-2, hepatitis C virus (HCV), HBV, cytomegalovirus, human T-cell leukemia virus type 1 (HTLV-1), or HTLV-2. Samples with HIV-1 RNA titers of  $\geq 1,000$  copies/mL gave consistent results. The TRUGENE HIV-1 Genotyping Kit and OpenGene DNA Sequencing System consistently generate highly accurate sequence data when tested with IMC-derived HIV and patient samples.  
 IT 7481-89-2, Zalcitabine  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (potentially interfering substances have no impact on performance characteristics of TRUGENE HIV-1 genotyping kit and OpenGene DNA sequencing system)  
 RN 7481-89-2 CAPLUS  
 CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 15 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2003:26945 CAPLUS  
 DN 139:381  
 TI Ribonucleoside analogue that blocks replication of bovine viral diarrhea and hepatitis C viruses in culture  
 AU Stuyver, Lieven J.; Whitaker, Tony; McBrayer, Tamara R.; Hernandez-Santiago, Brenda I.; Lostia, Stefania; Tharnish, Phillip M.; Ramesh, Mangala; Chu, Chung K.; Jordan, Robert; Shi, Junxing; Rachakonda, Suguna; Watanabe, Kyoichi A.; Otto, Michael J.; Schinazi, Raymond F.  
 CS Pharmasset Inc., Tucker, GA, 30084, USA  
 SO Antimicrobial Agents and Chemotherapy (2003), 47(1), 244-254  
 CODEN: AMACQ; ISSN: 0066-4804  
 PB American Society for Microbiology  
 DT Journal  
 LA English  
 AB A base-modified nucleoside analog,  $\beta$ -D-N4-hydroxycytidine (NHC), was found to have antipestivirus and antihepacivirus activities. This compound inhibited the production of cytopathic bovine viral diarrhea virus (BVDV) RNA in a dose-dependent manner with a 90% effective concentration (EC90) of 5.4  $\mu$ M, an observation that was confirmed by virus yield assays (EC90 = 2  $\mu$ M). When tested for hepatitis C virus (HCV) replicon RNA reduction in Huh7 cells, NHC had an EC90 of 5  $\mu$ M on day 4. The HCV RNA reduction was incubation time and nucleoside concentration dependent. The in vitro antiviral effect of NHC was additive with recombinant alpha

interferon-2a and could be prevented by the addition of exogenous cytidine and uridine but not of other natural ribo- or 2'-deoxynucleosides. When HCV RNA replicon cells were cultured in the presence of increasing concns. of NHC (up to 40  $\mu$ M) for up to 45 cell passages, no resistant replicon was selected. Similarly, resistant BVDV could not be selected after 20 passages. NHC was phosphorylated to the triphosphate form in Huh7 cells, but in cell-free HCV NS5B assays, synthetic NHC-triphosphate (NHC-TP) did not inhibit the polymerization reaction. Instead, NHC-TP appeared to serve as a weak alternative substrate for the viral polymerase, thereby changing the mobility of the product in polyacrylamide electrophoresis gels. We speculate that incorporated nucleoside analogs with the capacity of changing the thermodyn. of regulatory secondary structures (with or without introducing mutations) may represent an important class of new antiviral agents for the treatment of RNA virus infections, especially HCV.

IT 3258-02-4, N4-Hydroxycytidine

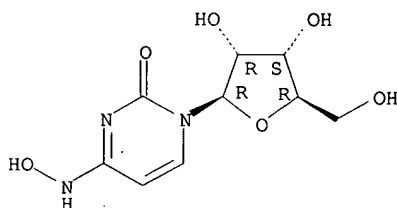
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(N4-hydroxycytidine blocks replication of bovine viral diarrhea and hepatitis C viruses in culture)

RN 3258-02-4 CAPLUS

CN Uridine, 4-oxime (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:927626 CAPLUS

DN 138:20431

TI Use of mitochondrial DNA-specific quantitative real-time PCR for diagnosis and monitoring drug toxicity in humans suffering with various disorders such as viral infections, neurological disorders, cancer, arthritis, male sterility or organ failure

IN Cote, Helene; Montaner, Julio; O'Shaughnessy, Michael V.

PA The University of British Columbia, Can.

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002097124	A1	20021205	WO 2002-CA796	20020529
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2416332	A1	20021205	CA 2002-2416332	20020529
US 2003099933	A1	20030529	US 2002-158543	20020529
EP 1395681	A1	20040310	EP 2002-729732	20020529
EP 1395681	B1	20060726		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004532043	T	20041021	JP 2003-500289	20020529
AT 334232	T	20060815	AT 2002-729732	20020529
PRAI US 2001-293523P	P	20010529		
WO 2002-CA796	W	20020529		

AB The invention discloses the use of quant. real-time polymerase chain reaction (PCR) to monitor drug toxicity, which involves measuring the relative amount of mitochondrial DNA in peripheral blood cells obtained from individuals suffering with various disorders. The invention relates that the quant. real-time PCR involves co-amplification of a mitochondrial sequence and a reference sequence, such as a genomic sequence. The invention also discloses that said disorders include HIV infection, cancer, hepatitis A, hepatitis B, hepatitis C, arthritis, Alzheimer's disease, Parkinson's disease, or Huntington's disease. The invention also relates that said drugs used to treat patients include nucleoside or nucleotide analogs, and/or reverse transcriptase inhibitors. The invention further discloses that the said method can be used to diagnose conditions such as male infertility and organ failure. The method was illustrated by detecting the amount of mitochondrial gene CCOI and the nuclear gene ASPOLy in HIV infected individuals undergoing antiviral therapy.

IT 7481-89-2, Hivid

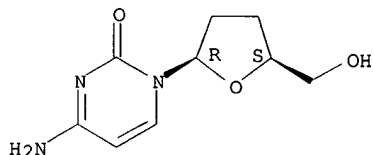
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(mitochondrial DNA-specific quant. real-time PCR for monitoring drug toxicity in individuals suffering for various disorders such as viral infections, neurol. disorders, cancer, and arthritis)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 17 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:869219 CAPLUS

DN 137:363028

TI Drug screening assays and kits for discovery of anti-microbial and chemotherapeutics agents

IN McCarthy, Lawrence; Kong, Lilly; Shao, Tang; Su, Xin

PA Focus Technologies, Inc., USA

SO PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002090993	A2	20021114	WO 2001-US44783	20011127
WO 2002090993	A3	20040415		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2430201	A1	20021114	CA 2001-2430201	20011127
US 2003039957	A1	20030227	US 2001-996187	20011127
EP 1435000	A2	20040707	EP 2001-273944	20011127
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2005500022	T	20050106	JP 2002-588199	20011127
PRAI US 2000-253150P	P	20001127		
US 2001-304533P	P	20010709		
US 2001-297686P	P	20010712		
US 2001-996187	A2	20011127		
WO 2001-US44783	W	20011127		



AB Methods and compns. for detecting the phenotype of a bioactive mol. assays. More specifically, are provided methods and compns. are provided for determining the suitability of one or more candidate compds. prior to or during the course of chemotherapy or anti-infective therapy, for their capacity to inhibit the bioactive mols. of micro-organisms, cancers and as an assay for expression in transgene therapy. Also provided are phenotypic assays for drug discovery. Claimed sequences were not present at the time of publication.

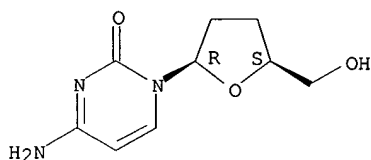
IT 7481-89-2, Zalcitabine

RL: BSU (Biological study, unclassified); BIOL (Biological study) (drug screening assays for discovery of anti-microbial and chemotherapeutics agents)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (\*).



L17 ANSWER 18 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:314958 CAPLUS

DN 136:340939

TI Preparation of modified nucleosides for treatment of viral infections and abnormal cellular proliferation

IN Stuyver, Lieven; Watanabe, Kyoichi A.

PA Pharmasset Limited, USA

SO PCT Int. Appl., 230 pp.

CODEN: PIXXD2

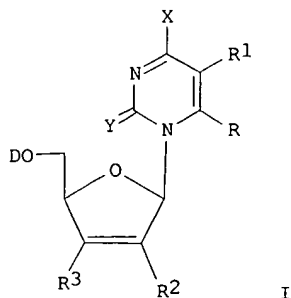
DT Patent

LA English

FAN.CNT 2

*Parent case*

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002032920	A2	20020425	WO 2001-US46113	20011018
	WO 2002032920	A3	20040219		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	CA 2426187	A1	20020425	CA 2001-2426187	20011018
	AU 2002028749	A5	20020429	AU 2002-28749	20011018
	US 2003087873	A1	20030508	US 2001-45292	20011018
	EP 1411954	A2	20040428	EP 2001-987756	20011018
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR			
	JP 2004533406	T	20041104	JP 2002-536301	20011018
	CN 1646141	A	20050727	CN 2001-820816	20011018
	BR 2001014837	A	20060509	BR 2001-14837	20011018
PRAI	US 2000-241488P	P	20001018		
	US 2001-282156P	P	20010406		
	WO 2001-US46113	W	20011018		
OS	MARPAT 136:340939				
GI					



AB Modified nucleosides, e.g. I, wherein D is hydrogen, alkyl, acyl, monophosphate, diphosphate, triphosphate, monophosphate ester, diphosphate ester, triphosphate ester, phospholipid or amino acid; X is H, halogen, NH<sub>2</sub>, substituted amine, oxime, OH, alkoxy, SH, thioalkyl; Y is O, S, Se; R and R<sub>1</sub> are independently H, alkyl, alkenyl, alkynyl, aryl, alkylaryl, halogen, NH<sub>2</sub>, substituted amine, oxime, hydrazine, OH, alkoxy, SH, thioalkyl, NO<sub>2</sub>, NO, CH<sub>2</sub>OH, CH<sub>2</sub>OH, ester, CONH<sub>2</sub>, amide, CN; R<sub>2</sub> and R<sub>3</sub> are independently H, halogen, OH, SH, OMe, SMe, NH<sub>2</sub>, NHMe, CH:CH<sub>2</sub>, CN, CH<sub>2</sub>NH<sub>2</sub>, CH<sub>2</sub>OH, CO<sub>2</sub>H; were prepared for treating a Flaviviridae (including BVDV and HCV), Orthomyxoviridae (including Influenza A and B) or Paramyxoviridae (including RSV) infection, or conditions related to abnormal cellular proliferation, in a host, including animals, and especially humans. This invention also provides an effective process to quantify the viral load, and in particular BVDV, HCV or West Nile Virus load, in a host, using real-time polymerase chain reaction ("TR-PCR"). Addnl., the invention discloses probe mols. that can fluoresce proportionally to the amount of virus present in a sample. Thus, (1'R,2'S,3'R,4'R)-1-[2,3-dihydroxy-4-(hydroxymethyl)cyclopentan-1-yl]-5-fluorocytosine was prepared and tested in vitro as antiviral and antitumor agent.

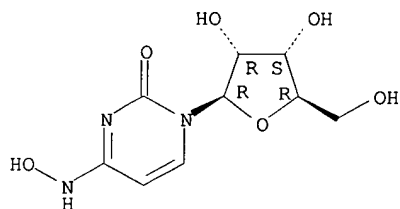
IT 3258-02-4P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

RN 3258-02-4 CAPLUS

CN Uridine, 4-oxime (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L17 ANSWER 19 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:171918 CAPLUS

DN 136:217007

TI Preparation of antiviral nucleoside derivatives as inhibitors of subgenomic hepatitis C virus RNA replication

IN Devos, Rene; Dymock, Brian William; Hobbs, Christopher John; Jiang, Wen-rong; Martin, Joseph Armstrong; Merrett, John Herbert; Najera, Isabel; Shimma, Nobuo; Tsukuda, Takuo

PA F. Hoffmann-La Roche Ag, Switz.

SO PCT Int. Appl., 225 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002018404	A2	20020307	WO 2001-EP9633	20010821
	WO 2002018404	A9	20031002		

10/908,624

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

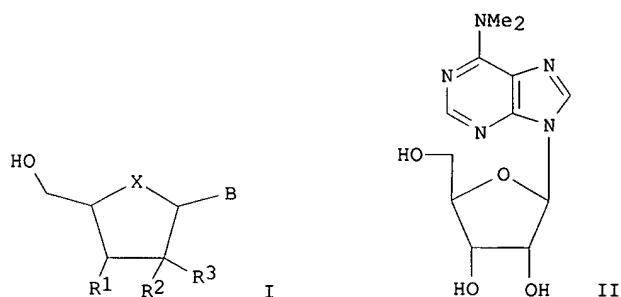
US 2003008841 A1 20030109 US 2001-923620 20010807  
 CA 2419399 A1 20020307 CA 2001-2419399 20010821  
 AU 2001095497 A5 20020313 AU 2001-95497 20010821  
 EP 1315736 A2 20030604 EP 2001-976128 20010821

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

BR 2001013611 A 20030624 BR 2001-13611 20010821  
 JP 2004513083 T 20040430 JP 2002-523918 20010821  
 ZA 2003001540 A 20040621 ZA 2003-1540 20030225  
 US 2004110718 A1 20040610 US 2003-678804 20031003

PRAI GB 2000-21285 A 20000830  
 GB 2000-26611 A 20001031  
 US 2001-923620 B1 20010807  
 WO 2001-EP9633 W 20010821

OS MARPAT 136:217007  
 GI



AB Nucleosides I, wherein R1 is hydrogen, hydroxy, alkyl, hydroxyalkyl, alkoxy, halogen, cyano, isocyano or azido; R2 is hydrogen, hydroxy, alkoxy, chlorine, bromine or iodine; R3 is hydrogen; or R2 and R3 together represent =CH2; or R2 and R3 represent fluorine; X is O, S or CH2; B is a substituted purine base, were prepared as inhibitors of subgenomic hepatitis C virus (HCV) RNA replication. Thus, nucleoside II was prepared and tested for the inhibition of HCV RNA replication (EC50 = 0.6 μM).

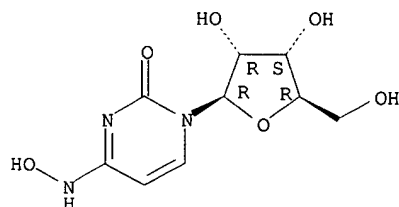
IT 3258-02-4P 7481-89-2P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of antiviral nucleoside derivs. as inhibitors of subgenomic hepatitis C virus RNA replication)

RN 3258-02-4 CAPLUS

CN Uridine, 4-oxime (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 7481-89-2 CAPLUS

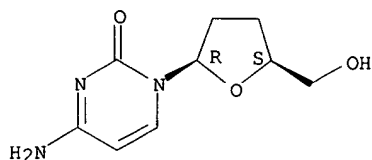
McIntosh

*Cpds 239-241*

10/908,624

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L17 ANSWER 20 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:109650 CAPLUS

DN 136:288583

TI Effects of HAART on hepatitis C, hepatitis G, and TT virus in multiply coinfecting HIV-positive patients with haemophilia

AU Takamatsu, J.; Toyoda, H.; Fukuda, Y.; Nakano, I.; Yokozaki, S.; Hayashi, K.; Saito, H.

CS Department of Transfusion Medicine, Nagoya University School of Medicine, Nagoya, 466-8550, Japan

SO Haemophilia (2001), 7(6), 575-581

CODEN: HAEMF4; ISSN: 1351-8216

PB Blackwell Science Ltd.

DT Journal

LA English

AB In multiply coinfecting human immunodeficiency virus (HIV)-pos. patients, we investigated the effects of high-activity antiretroviral therapy (HAART) using HIV protease inhibitors on three other viruses: hepatitis C virus (HCV), hepatitis G virus (HGV), and TT virus (TTV). Viral concns. were measured serially by polymerase chain reaction methods in five patients with quadruple infection (HIV, HCV, HGV, and TTV) and in two patients with triple infection (HIV, HCV, and HGV) before and during HAART. In addition, CD4+ cell counts and serum alanine aminotransferase (ALT) levels were measured serially. Generally we observed no difference in serum HCV RNA, HGV RNA, or TTV DNA concns. between samples obtained before and after initiation of HAART, whereas HIV RNA concentration decreased and CD4 counts increased in most patients. However, two patients had markedly decreased concns. of HCV RNA and HGV RNA, resp., more than 12 mo after beginning HAART. Normalization of serum ALT levels was observed in a patient with decline of HCV RNA concns. No interactions were observed among these four viruses. HAART had no apparent direct effects on HCV, HGV, or TTV. Further studies will be required to elucidate whether the restoration of immune status through suppression of HIV replication by HAART may affect HCV or HGV RNA concns.

IT 7481-89-2, Zalcitabine

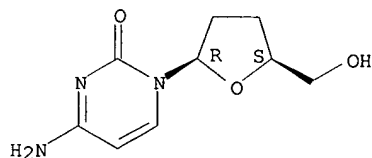
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(HAART effect on hepatitis C, hepatitis G, and TT virus in HIV-pos. patients with multiple coinfections and haemophilia)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



*Same cpd.*

RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 21 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:107667 CAPLUS

DN 136:145568

TI Improved tolerance to anti-viral and anti-tumor chemotherapy by administration of erythropoietin

McIntosh

10/908,624

IN Itri, Loretta; Bowers, Peter  
PA Ortho-McNeil Pharmaceutical, Inc., USA  
SO PCT Int. Appl., 56 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002010743	A1	20020207	WO 2001-US24426	20010801
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	CA 2417550	A1	20020207	CA 2001-2417550	20010801
	US 2002052317	A1	20020502	US 2001-921516	20010801
	EP 1325324	A1	20030709	EP 2001-959497	20010801
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	HU 200303056	A2	20031229	HU 2003-3056	20010801
	JP 2004505114	T	20040219	JP 2002-516619	20010801
	BR 2001013179	A	20040622	BR 2001-13179	20010801
	ZA 2003001634	A	20040622	ZA 2003-1634	20030227
PRAI	US 2000-222538P	P	20000802		
	WO 2001-US24426	W	20010801		

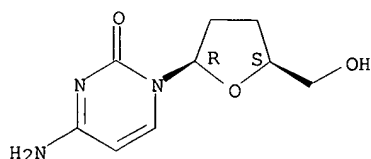
AB The present invention provides methods using erythropoietin to improve the tolerance of anti-viral and anti-tumor chemotherapeutic regimens containing interferon. The invention also described improved methods to treat chronic HCV by adjusting the dose of ribavirin to tailor the active dose of the drug while supporting the Hb levels in the patient with EPO. The present invention also provides anti-viral dosing regimens, particularly for chronic HCV comprising administration of an interferon containing anti-viral medicament, EPO, and a compound that reduces the amount of active tumor necrosis factor in the subject.

IT 7481-89-2, Zalcitabine  
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (improved tolerance to anti-viral and anti-tumor chemotherapy by administration of erythropoietin)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 22 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:784185 CAPLUS

DN 136:95621

TI Low frequency of severe hepatotoxicity and association with HCV coinfection in HIV-positive patients treated with HAART

AU Monforte, Antonell d'Arminio; Bugarini, Roberto; Pezzotti, Patrizio; De Luca, Andrea; Antinori, Andrea; Mussini, Cristina; Vigevani, Gian Marco; Tirelli, Umberto; Bruno, Raffaele; Gritti, Francesco; Piazza, Marcello; Chigiotti, Silvia; Chirianni, Antonio; De Stefano, Carlo; Pizzigallo, Eligio; Perrella, Oreste; Moroni, Mauro

CS ICONA Study Group, Institute of Infectious and Tropical Diseases, L Sacco H, University of Milan, Milan, 20157, Italy

SO JAIDS, Journal of Acquired Immune Deficiency Syndromes (2001), 28(2), 114-123

McIntosh

10/908,624

CODEN: JJASFJ

PB Lippincott Williams & Wilkins

DT Journal

LA English

AB Highly active antiretroviral therapy (HAART) is strongly effective in reducing morbidity and mortality in HIV-1-pos. individuals. Its main drawback is the potential toxicity. Data on the frequency and determinants of severe hepatotoxicity in a clin. setting are still sparse. This is a prospective study of HIV-1-pos. individuals with known HBsAg and HCV-Ab serol. The study end point was progression to alanine aminotransferase (ALT) levels  $\geq 200$  IU/L after HAART initiation. Cumulative probability of progression to this end point was estimated by the Kaplan-Meier method. Crude and adjusted hazard ratios (HR) were estimated by proportional hazards regression model. One thousand two hundred fifty-five patients were included. HBsAg was found in 91 (7.2%), HCV-Ab in 578 (46.5%) patients; almost all injection drug users (451 of 482; 93.6%) were HCV-Ab pos. Sixty-one individuals progressed to the end point with a probability of 7.9% (95% confidence interval [CI], 5.6-10.0) of progression at 24 mo from starting. Independent factors predicting progression to the end point were baseline ALT levels (HR, 5.29; 95% CI, 3.24-8.65; every 10 IU/L higher), HCV-Ab positivity (HR, 4.01; 95% CI, 1.48-10.85) or both HBsAg and HCV-Ab positivity (HR, 3.85, 95% CI, 1.01-14.61), and previous non-HAART therapy (HR, 1.84, 95% CI, 1.04-3.42). Patients receiving stavudine-containing regimens had a lower risk than those receiving zidovudine-containing regimens (HR, 0.30, 95% CI, 0.12-0.71). There was a low risk of ALT  $\geq 200$  IU/L in the authors' cohort. Hepatitis C coinfection and elevated ALT levels at HAART initiation are important predictors of progression to ALT  $\geq 200$  IU/L; stavudine-containing regimens were associated with a lower risk compared with zidovudine-containing regimens.

IT 7481-89-2, Zalcitabine

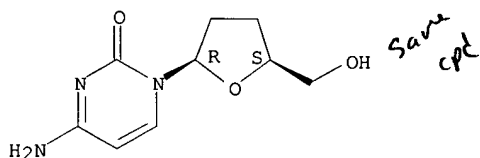
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(low frequency of severe hepatotoxicity and association with HCV coinfection in HIV-pos. humans treated with HAART)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 23 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:840382 CAPLUS

DN 135:40464

TI Safety and efficacy of interferon-ribavirin combination therapy in HCV-HIV coinfecting subjects: An early report

AU Zylberberg, H.; Benhamou, Y.; Lagneaux, J. L.; Landau, A.; Chaix, M. -L.; Fontaine, H.; Bochet, M.; Poynard, T.; Katlama, C.; Pialoux, G.; Brechot, C.; Pol, S.

CS Unite d'Hepatologie, INSERM U370, Unite d'Hepatologie, INSERM U370, CHU Necker, Paris, Fr.

SO Gut (2000), 47(5), 694-697

CODEN: GUTTAK; ISSN: 0017-5749

PB BMJ Publishing Group

DT Journal

LA English

AB More severe liver disease together with a poor response rate to  $\alpha$  interferon argue for the use of more potent anti-hepatitis C virus (HCV) therapies in human immunodeficiency virus (HIV)-HCV coinfecting patients, but the efficacy and safety of interferon-ribavirin combination therapy in HIV infected subjects are unknown. Aim of this study was to retrospectively evaluate the efficacy and safety of anti-HCV combination therapy in 21 HCV-HIV coinfecting

McIntosh

patients receiving antiretroviral therapy, and to access the clin. relevance of in vitro inhibition of phosphorylation by ribavirin of potent inhibitors of HIV-i.e., zidovudine, stavudine, and zalcitabine. Twenty one patients were treated with combined antiretroviral therapy including zidovudine (n=8) or stavudine (n=13) (in association with protease inhibitors in 12). All received ribavirin (1000 or 1200 mg/day) and  $\alpha$  interferon (3 MU three times/wk) for chronic hepatitis C infection. All patients had not responded (n=20) or relapsed (n=1) after a previous six month course of  $\alpha$  interferon therapy. HIV viral load (Monitor test) and CD4 cells count were measured at the beginning and every three months during and after ribavirin plus  $\alpha$  interferon therapy over a mean period of 11 (1) months. Clin. and biol. adverse effects were recorded. There was no significant variation in HIV viral load or CD4 cell counts after three or six months of ribavirin therapy compared with baseline values. Of the 21 subjects, three (14%) had an increase in HIV viral load of more than 0.5 log leading to discontinuation of ribavirin in one. Eleven of 21 (52.4%) and initial neg. HCV viremia at three (n=10) or six (n=1) months but only six were polymerase chain reaction neg. at the end of therapy, leading to rates for primary response and breakthrough of 23.8% and 28.5%, resp. Six months after completion of therapy, three patients relapsed (14.3%) and three (14.3%) had sustained virol. response. Median Hb concentration decreased significantly after three and six months of ribavirin therapy (p=0.0002 and p=0.0003, resp.) leading to withdrawal of therapy in one patient. These preliminary results show that: (1) despite in vitro interactions between ribavirin, zidovudine, and stavudine, significant variation in HIV replication does not usually occur in HCV-HIV coinfecting patients receiving ribavirin and different antiretroviral regimens, including zidovudine and stavudine; (2)  $\alpha$  interferon and ribavirin combination therapy induced primary and sustained virol. responses in 28.5% and 14.3% of treated subjects (who were previous non-responders to interferon therapy), resp.; (3) anemia is a frequent adverse event. Such results should be confirmed in larger prospective trials.

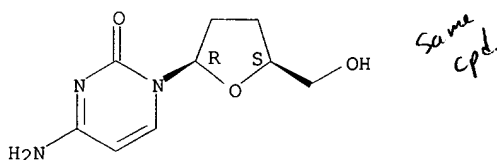
IT 7481-89-2, Zalcitabine

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(interferon- $\alpha$  and ribavirin combination therapy in humans  
coinfecting with hepatitis C virus and HIV)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 24 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:443717 CAPLUS

DN 133:37763

TI Can HCV affect the efficacy of anti-HIV treatment?

AU Filippini, P.; Coppola, N.; Scolastico, C.; Liorre, G.; Nocera, R.; Sagnelli, E.; Piccinino, F.

CS Institute of Infectious Diseases, School of Medicine, Second University of Naples, Naples, Italy

SO Archives of Virology (2000), 145(5), 937-944

CODEN: ARVIDF; ISSN: 0304-8608

PB Springer-Verlag Wien

DT Journal

LA English

AB To evaluate the impact of new antiretroviral combinations (HAART: Highly Active Anti Retroviral Therapy) on HCV replication and liver enzyme levels, we analyzed the changes in HCV viremia and aminotransferase levels in HIV and HCV co-infected patients. Moreover, to evaluate the influence of HCV infection on the efficacy of HAART, we compared the virol., immunol. and biochem. response

Printed ✓

10/908,624

to antiretroviral combinations in anti-HIV pos. subjects with or without HCV infection. We enrolled eight consecutive outpatients with HIV-HCV coinfection and with indications for HAART (Group A). For each patient in group A, we selected an anti-HIV neg. patient with indications for HAART, pair-matched for age, sex, risk factor for HIV infection, presumed duration of infection, number of CD4 cells, HIV viremia and treatment schedule (Group B). A statistically significant increase in CD4 in both groups was found at 1st, 3rd and 6th month of antiretroviral therapy. A decrease in HIV-RNA in both groups was observed at 1st and 6th month of treatment. The percentage of patients with undetectable HIV-RNA at the 1st month was higher in Group B than in Group A (8/8 vs. 3/8,  $p = 0.025$ ). Basal HCV-RNA viremia was very high in each case and no variations during treatment were observed. During therapy the aminotransferase levels slightly decreased in Group A and consistently increased in Group B. In Group A the differences were not significant to the statistical anal.; in Group B the aminotransferase levels at 3rd and 6th month were significantly higher than those observed at the baseline.

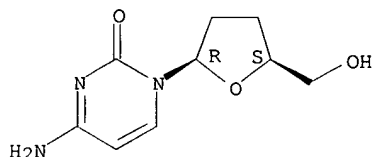
IT 7481-89-2, Zalcitabine

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(can HCV affect efficacy of anti-HIV treatment)

RN 7481-89-2 CAPLUS

CN Cytidine, 2',3'-dideoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 18:37:47 ON 26 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:38:15 ON 26 DEC 2006

L1	STRUCTURE UPLOADED
L2	STRUCTURE UPLOADED
L3	STRUCTURE UPLOADED
L4	STRUCTURE UPLOADED
L5	STRUCTURE UPLOADED
L6	24 S L1
L7	1 S L2
L8	2 S L3
L9	0 S L4
L10	1 S L5

FILE 'CAPLUS' ENTERED AT 18:40:31 ON 26 DEC 2006

L11	1835 S L6
L12	2 S L7
L13	60 S L8
L14	0 S L9
L15	1 S L10
L16	1891 S L11 OR L13
L17	24 S L16 AND HCV